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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,779	07/14/2003	Koichi Sato	P23210	4035

7055 7590 06/19/2007  
GREENBLUM & BERNSTEIN, P.L.C.  
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RESTON, VA 20191

EXAMINER
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SELBY, GEVELL V

ART UNIT	PAPER NUMBER
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2622

NOTIFICATION DATE	DELIVERY MODE
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06/19/2007

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com  
pto@gbpatent.com

<b>Office Action Summary</b>	Application No. 10/617,779	Applicant(s) SATO, KOICHI	
	Examiner Gevell Selby	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 11, 14-16 is/are rejected.
- 7) ☒ Claim(s) 9, 10, 12 and 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 3/30/07 have been fully considered but they are not persuasive. The applicant submits that the prior art does not disclose the following limitations of the claimed invention:

an image recording area configured to store an image signal, the image signal being subjected to a plurality of image correction processes in a process order; and an information recording area configured to store data indicating the process order in which the image correction processes are performed, as stated in claim 1;

a process order determining processor configured to determine the process order; and an image signal restoring processor configured to perform a plurality of restoration processes to the corrected image signal to restore the image signal, the plurality of restoration processes being performed in a restoring order which is the reverse of the process order, as stated in claim 2;

image correcting processor configured to perform a plurality of image correction processes to an image signal in a process order to generate a corrected image signal; an image signal recording processor configured to record the corrected image signal in a recording medium; a process order recording processor configured to record the process order in the recording medium; a process order reading processor configured to read the process order from the recording medium; and an image signal restoring processor configured to perform restoration processes to the corrected image signal to restore the

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image signal, the restoration processes being performed in a restoring order which is the reverse of the process order, as stated in claim 3.

The applicant also submits the combination of Kobayashi and Sasaki in claim 6 is improper. Examiner respectfully disagrees.

Examiner's Reply:

Re claim 1) In regard to the applicant traversing the 101 rejection, claiming the image recording area is configured to store an image signal is an intended use of the of the recording area and storing image signals are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. Therefore, the 35 U.S.C 101 rejection is withheld.

In response to applicant's argument that "configured to store", "configured to determine", "configured to perform", "configured to record", "configured to read" distinguishes the claims from the prior art, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

The Sasaki reference discloses an image recoding medium comprising:

an image recording area (see figure 14, element 209) configured to store an image signal, the image signal being subjected to a plurality of image correction processes in a process order (see column 5, lines 20-22); and an information recording area (see figure 14, header parts) configured to store data indicating the process order in which the image correction processes are performed (see column 8, lines 36-42: the header contains

compression algorithms which indicate the process order for compression and decoding).

Therefore, the Sasaki reference discloses all the claimed limitations the invention and the dependent claims are not allowable because of their dependency.

Re claim 2) The Sasaki reference discloses an image signal process order device comprising:

a process order determining processor (see figure 7, element 109) configured to determine the process order (see figure 14 and column 7, line 40 to column 8, line 37); and an image signal restoring processor (see figure 16, element 501) configured to perform a plurality of restoration processes to the corrected image signal to restore the image signal, the plurality of restoration processes being performed in a restoring order which is the reverse of the process order (see column 8, lines 55-59: it is inherent the Sasaki reference discloses the restoration processes being performed in a restoring order which is the reverse of the process order, since the decoding reverses encoding).

Therefore, the Sasaki reference discloses all the claimed limitations the invention and the dependent claims are not allowable because of their dependency.

Re claim 3) The Kobayashi reference discloses an image signal process order system. It is inherent the video camera 21 of the Kobayashi reference comprises an image correcting processor that performs a plurality of image correction processes to an image signal in a process order to generate a corrected image signal, since the processing the image for gamma correction in a process order (see column 6, lines 4-9); an image signal recording processor that records the corrected image signal in a recording medium, since the image data to recorded to the VTR (see column 5, lines 27-29); and a process order recording processor that records the process order in

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the recording medium, since the process order characteristics are written in the ROM in reverse (see column 6, lines 16-20). The Kobayashi reference further discloses comprising:

a process order reading processor that reads the process order from the recording medium (see column 6, lines 15-20); and

an image signal restoring processor (see linearizer 26) that performs restoration processes to the corrected image signal to restore the image signal, the restoration processes being performed in a restoring order, which is the reverse of the process order (see column 6, lines 10-15).

Therefore, the Kobayashi reference discloses all the claimed limitations the invention and the dependent claims are not allowable because of their dependency.

Re claim 6) In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in

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the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one of ordinary skill in the camera art to save image information along with the image on a recordable medium in order for the other devices the storage medium is used in to easily access the header to see the image information and determine what further processing is required to obtain the desired image.

***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 1 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims regarding storing image signals are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. The following is a suggested preamble:

“a computer readable medium having encoded thereon a computer image storing program comprising a set of instructions when executed by a computer to implement a method for image information in an image recording area or an information recording area, the method comprising the steps of:”.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**4. Claims 1, 2, 4, 5, 7, 8, and 11 are rejected under 35 U.S.C. 102(a) as being anticipated by Sasaki et al., US 6,515,698.**

In regard to claim 1, Sasaki et al., US 6,515,698, discloses an image recording medium, comprising:

an image recording area (see figure 14, element 209) configured to store an image signal, the image signal being subjected to a plurality of image correction processes in a process order (see column 5, lines 20-22); and

an information recording area (see figure 14, header parts) configured to store data indicating the process order in which the image correction processes are performed (see column 8, lines 36-42: the header contains compression algorithms which indicate the process order for compression and decoding).

In regard to claim 2, Sasaki et al., US 6,515,698, discloses an image signal process order device that processes a corrected image signal obtained by performing a plurality of image correction processes to an image signal in a process order, comprising:

a process order determining processor (see figure 7, element 109) configured to determine the process order (see figure 14 and column 7, line 40 to column 8, line 37); and

an image signal restoring processor (see figure 16, element 501) configured to perform a plurality of restoration processes to the corrected image



signal to restore the image signal, the plurality of restoration processes being performed in a restoring order which is the reverse of the process order (see column 8, lines 55-59: it is inherent the Sasaki reference discloses the restoration processes being performed in a restoring order which is the reverse of the process order, since the decoding reverses encoding).

In regard to claim 4, Sasaki et al., US 6,515,698, discloses the image signal process order device of claim 2, wherein data indicating the process order is recorded in an information recording area of an image recording medium (see figure 14, header parts), and the image signal is recorded in an image recording area of the image recording medium (see figure 14, element 209).

In regard to claim 5, Sasaki et al., US 6,515,698, discloses the image signal process order device of claim 2, further comprising an image recording medium (see figure 12, element 111) that includes an image recording area in which the image signal can be recorded (see figure 14, element 209), and an information recording area in which data indicating the process order is recorded (see figure 14, header section).

In regard to claim 7, Sasaki et al., US 6,515,698, discloses the image signal process order device of claim 2, discloses a program (see figure 17 and column 8, lines 49-51) to process the corrected image signal, the program comprising:

a processing order data reading section executable to read processing order data from first area of a storage (see column 8, lines 53-55); and

an image data reading section executable to read image data from a second area of the storage (see column 8, lines 56-62: the image data is read out of the memory to decode it).

In regard to claim 8, Sasaki et al., US 6,515,698, discloses the image signal process order device of claim 7, the program further comprising:

a compressed data determining section executable to determine whether the image data stored in the second storage area is compressed image data (see column 8, lines 56-62); and

an expansion section executable to expand the image data read from the second storage area when the compressed data determining section determines that the image data stored in the second storage area is compressed image data (see column 8, lines 56-62).

In regard to claim 11, Sasaki et al., US 6,515,698, discloses the image signal process order device of claim 7, the program further comprising a restoration process determining section executable to determine whether at least one of the plurality of restoration processes is to be performed (see column 8, lines 56-62).

**5. Claim 3 is rejected under 35 U.S.C. 102(b) as being anticipated by Kobayashi et al, US 5,390,028.**

In regard to claim 3, Kobayashi et al., US 5,390,028, discloses an image correcting processor that performs a plurality of image correction processes to an image signal in a process order to generate a corrected image signal, since the processing the image for gamma correction in a process order (see column 6, lines 4-9); an image signal

recording processor that records the corrected image signal in a recording medium, since the image data is recorded to the VTR (see column 5, lines 27-29); and a process order recording processor that records the process order in the recording medium, since the process order characteristics are written in the ROM in reverse (see column 6, lines 16-20). The Kobayashi reference further discloses comprising:

a process order reading processor that reads the process order from the recording medium (see column 6, lines 15-20); and

an image signal restoring processor (see linearizer 26) that performs restoration processes to the corrected image signal to restore the image signal, the restoration processes being performed in a restoring order, which is the reverse of the process order (see column 6, lines 10-15).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al, US 5,390,028, in view of Sasaki et al., US 6,515,698.**

In regard to claim 6, Kobayashi et al, US 5,390,028, discloses the image signal process order system of claim 3. The Kobayashi reference does not disclose wherein data

indicating the process order is recorded in an information recording area of the recording medium, and the image signal is recorded in an image recording area of the recording medium.

Sasaki et al., US 6,515,698, discloses an image processing system wherein data indicating the process order is recorded in an information recording area of the recording medium (see figure 14, header section), and the image signal is recorded in an image recording area of the recording medium (see figure 14, element 209).

It would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify Kobayashi et al, US 5,390,028, in view of Sasaki et al., US 6,515,698, to have data indicating the process order is recorded in an information recording area of the recording medium, and the image signal is recorded in an image recording area of the recording medium, in order for the other devices the storage medium is used in to easier access the header to see previous processing and determine what further processing is required to obtain the desired image.

8. **Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki et al., US 6,515,698 in view of Tanji et al., US 6,515,699.**

In regard to claims 14 and 15, Sasaki et al., US 6,515,698, discloses the image signal process order device of claims 1 and 2. The Sasaki reference does not disclose wherein said plurality of image correction processes includes a gamma correction.

Tanji et al., US 6,515,699, discloses a camera that performs a gamma correction process to avoid aliasing.

It would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify Sasaki et al., US 6,515,698 in view of Tanji et al., US 6,515,699, wherein said plurality of image correction processes include a gamma correction, in order to prevent aliasing.

**9. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al, US 5,390,028, in view of Tanji et al., US 6,515,699.**

In regard to claim 16, Kobayashi et al, US 5,390,028, discloses the image signal process order device of claim 3. The Sasaki reference does not disclose wherein said plurality of image correction processes includes a gamma correction.

Tanji et al., US 6,515,699, discloses a camera that performs a gamma correction process to avoid aliasing.

It would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify of Kobayashi et al, US 5,390,028, in view of Tanji et al., US 6,515,699, wherein said plurality of image correction processes include a gamma correction, in order to prevent aliasing.

***Allowable Subject Matter***

10. Claims 9, 10, 12 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

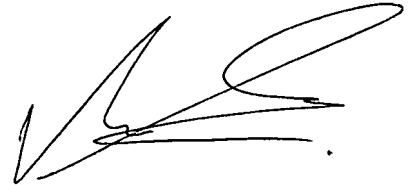
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gevell Selby whose telephone number is 571-272-7369. The examiner can normally be reached on 8:00 A.M. - 5:30 PM (every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivek Srivastava can be reached on 571-272-7304. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

gvs

A handwritten signature in black ink, appearing to read 'Vivek Srivastava', with a stylized flourish at the end.

VIVEK SRIVASTAVA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600